

COMPUTER SCIENCE AND ENGINEERING

101. Which of the following logic families has the shortest propagation delay ?
 (1) CMOS (2) BiCMOS (3) ECL (4) 74SXX

102. What is the range of invalid TTL output voltage ?
 (1) 0.0 – 0.4 V (2) 0.4 – 2.4 V (3) 2.4 – 5.0 V (4) 0.0 – 5.0 V

103. The logic gate that will have a LOW output when any one of its inputs is HIGH is the:
 (1) NAND Gate (2) AND Gate (3) OR Gate (4) NOR Gate

104. When reading a Boolean expression, what does the word "NOT" indicate ?
 (1) Inversion (2) High (3) Low (4) The same as

105. What is the binary equivalent of the decimal number 368 ?
 (1) 101110000 (2) 110110000 (3) 111010000 (4) 111100000

106. How many Flip-Flops are required for mod-16 counter ?
 (1) 5 (2) 6 (3) 3 (4) 4

107. The Boolean expression $\bar{A} \cdot B + A \cdot \bar{B} + A \cdot B$ is equivalent to
 (1) $\bar{A} \cdot B$ (2) $\bar{A} + \bar{B}$ (3) $A \cdot B$ (4) $A + B$

108. Data can be changed from special code to temporal code by using
 (1) counters (2) combinational circuits
 (3) Shift Registers (4) A/D Converters

109. Status register is also called as _____
 (1) stack (2) accumulator (3) flags (4) counter

110. Which method bypasses the CPU for certain types of data transfer ?
 (1) DMA (2) polled I/O
 (3) Interrupt Driven I/O (4) software Interrupts

111. A 20-bit address bus allows access to a memory of capacity
 (1) 2 MB (2) 1 MB (3) 8 MB (4) 4 MB

112. Which of the following is not an 8086 general purpose register ?
 (1) Stack Segment (2) Data Segment
 (3) Address Segment (4) Code Segment

Booklet Code : A

113. Access time is faster for _____
 (1) DRAM (2) SRAM (3) EROM (4) ROM
114. _____ pin is used to select direct command word.
 (1) A0 (2) A12 (3) AD7-AD6 (4) D7-D6
115. The microprocessor determines whether the specified condition exists or not by testing the _____
 (1) carry flag (2) common flag (3) sign flag (4) conditional flag
116. A 20-bit address bus can locate _____.
 (1) 4,194,304 locations (2) 1,048,576 locations
 (3) 2,097,152 locations (4) 8,388,608 locations
117. Which one is not an arithmetic instruction ?
 (1) ROL (rotate left) (2) DEC (decrement)
 (3) CMP (compare) (4) INC (increment)
118. The instruction MOV AL, 65 is to store
 (1) store 0100 0010 in AL (2) store 40H in AL
 (3) store 0100 0001 in AL (4) store 42H in AL
119. The idea of cache memory is based on
 (1) heuristic 90 – 10 rule
 (2) property of locality of reference
 (3) the fact that references generally tend to cluster
 (4) seek time
120. A group of bits that tell the computer to perform a specific operation is known as _____.
 (1) Instruction code (2) Accumulator
 (3) Register (4) Micro-operation
121. BSA Instruction is a _____.
 (1) Branch and store accumulator (2) Branch and shift address
 (3) Branch and save return address (4) Branch and show accumulator
122. Subtraction is generally carried out by using _____ method.
 (1) signed magnitude (2) 1's complement
 (3) 2's complement (4) BCD subtraction
123. The circuit that is used to store one bit of data will be called as _____.
 (1) Flip Flop (2) Encoder (3) Decoder (4) Register

124. Due to which of the following the RAM memory makes it not possible for permanent storage ?
 (1) too bulky (2) too slow (3) unreliable ~~(4)~~ it is a volatile
125. The expression $A * B + C * D$ can be represented in reverse polish notation as
 (1) $A * B C D * +$ ~~(2)~~ $A B * C D * +$ ~~(3)~~ $A * B * C D +$ (4) $A B * C D + * +$
126. In Implicit addressing mode, the operands are stored in _____
 (1) registers ~~(2)~~ Accumulators
~~(3)~~ Push down stack (4) Cache
127. Von Neumann architecture is _____
 (1) MIMD (2) SIMD ~~(3)~~ SISD (4) MISD
128. Virtual memory consists of
~~(1)~~ Static RAM (2) Dynamic RAM
 (3) Magnetic Memory ~~(4)~~ EPRAM
129. Which of the following traversal techniques lists the nodes of binary search tree in ascending order ?
 (1) Post order ~~(2)~~ Pre order ~~(3)~~ In order (4) bfs
130. Merge sort uses
~~(1)~~ divide and conquer strategy (2) backtracking approach
 (3) heuristic search (4) greedy approach
131. Which of the following is used while implementing the quick sort ?
 (1) set (2) list ~~(3)~~ queue ~~(4)~~ stack
132. If the sequence of operations *push(1)*, *push(2)*, *pop*, *push(1)*, *push(2)*, *pop*, *pop*, *push(2)*, *pop* are performed on a stack, the sequence of popped out values are
 (1) 2, 2, 1, 2, 2 ~~(2)~~ 2, 2, 1, 1, 2 (3) 2, 1, 2, 2, 1 ~~(4)~~ 2, 1, 2, 2, 2
133. Consider the following program segment
`for(j = 3, j < 15; j += 3);
 printf("%d", j);`
 results in
~~(1)~~ a syntax error (2) an execution error
 (3) printing of 12 (4) printing of 15

134. The following program

```
main( )
{
    printf("%u", main);
}
```

Results in

- (1) printing of garbage number
- (2) an execution error
- (3) printing of starting address of the function main
- (4) an infinite loop

135. Consider the following program :

```
main( )
{
    const int i=10;
    int j=10;
    i = i + j;
    printf("%d", i);
}
```

Results in

- (1) printing of 20
- (2) returns compilation error
- (3) returns execution error
- (4) prints garbage value

136. By default the data members of a structure are

- (1) public
- (2) private
- (3) private – public
- (4) protected

137. The format identifier "%i" is also used for _____ data type.

- (1) char
- (2) int
- (3) float
- (4) double

138. Which operator returns the number of bytes occupied by particular data type ?

- (1) arithmetic operator
- (2) relational operator
- (3) size of operator
- (4) shift operator

139. The Hamming distance between 001111 and 010011 is

- (1) 3
- (2) 4
- (3) 2
- (4) 1

140. Bit stuffing refers to

- (1) inserting a '0' in user data stream to differentiate it with a flag
- (2) appending a nibble to the flag sequence
- (3) inserting a '0' in flag stream to avoid ambiguity
- (4) appending a nibble to the user data stream

141. The network topology which supports bi-directional links between each possible node is
 (1) ring (2) star (3) tree (4) mesh
142. Which of the following uses UDP as the transport protocol ?
 (1) SMTP (2) DNS (3) Telnet (4) HTTP
143. Which of the following transport layer protocols is used to support electronic mail ?
 (1) IP (2) SMTP TCP (4) UDP
144. In the IPv4 addressing format, the number of networks allowed under class C address is
 (1) 2^{14} (2) 2^7 (3) 2^{21} (4) 2^{24}
145. End - to - end connectivity is provided from host - to - host in
 (1) the network layer (2) the transport layer (3) the session layer (4) the physical layer
146. Start and stop bits are used in serial communication for
 (1) synchronization (2) error detection (3) error correction (4) slowing down the communication
147. Manchester code uses _____
 (1) bipolar encoding (2) Polar encoding (3) return to zero encoding (4) unipolar coding
148. baud means
 (1) the rate at which the data is transferred
 (2) the number of bits transmitted per unit time
 (3) the number of bytes transmitted per unit time
 (4) the rate at which the signal changes.
149. Page fault occurs due to the following :
 (1) the page is in main memory
 (2) the page is not in main memory
 (3) one tries to divide a number by 0
 (4) the page is corrupted by application software
150. Let the page fault service time be 10 ms in a computer with average memory access time being 20 ns. If one page fault is generated for every 10^6 memory accesses, what is the effective access time for the memory ?
 (1) 21 ns (2) 23 ns (3) 30 ns (4) 35 ns
151. An operating system contains 3 user processes each requiring 2 units of resource R. The minimum number of required units of R such that no deadlock will ever occur is
 (1) 4 (2) 3 (3) 5 (4) 6

152. In time – sharing operating system, when the time slot given to a process is completed, the process goes from RUNNING state to _____ state.

- (1) BLOCKED (2) SUSPENDED
(3) TERMINATED (4) READY

153. Dirty bit is used to show the

- (1) page with corrupted data
(2) wrong page in the memory
(3) page that is modified after being loaded into cache memory
(4) page that is less frequently accessed

154. In which one of the following page replacement policies, Belady's anomaly may occur ?

- (1) FCFS (2) SJF
(3) Round-Robin (4) Priority

155. If there are 32 segments, each of size 1 kbytes, then the logical address should have

- (1) 13 bits (2) 14 bits (3) 15 bits (4) 16 bits

156. Thrashing

- (1) reduces page I/O
(2) decreases the degree of multiprogramming
(3) implies excessive page I/O
(4) improves the system performance

157. Windows 98 operating system is a

- (1) single user system (2) multi user system
(3) single tasking system (4) multi tasking system

158. In semaphore when the order of processes that are waiting to be removed from the queue is first in first out (FIFO) then it is called _____ semaphore.

- (1) weak (2) strong (3) binary (4) counted

159. Which of the following is a service not supported by the operating system ?

- (1) protection (2) memory protection
(3) compilation (4) I/O operation

160. The method of mapping the consecutive memory blocks to the consecutive cache blocks is called _____ mapping.

- (1) Indirect (2) Direct (3) Associative (4) Set associative

161. An attribute of one table matching the primary key of another table is called as

- (1) foreign key (2) secondary key
(3) candidate key (4) composite key

162. The maximum marks in a subject should not be greater than 100. This is

- (1) referential constraint (2) feasible constraint
(3) integrity constraint (4) over-defined constraint

163. The SQL statement

SELECT SUBSTR('123456789', INSTR('abcabcabc', 'b', 4) FROM DUAL;

Prints

(1) 6789

2345

(3) 1234

(4) 456789

164. In SQL, 10/NULL will evaluate to

(1) FALSE

(2) -1

NULL

(4) 10

165. Which normal form is considered adequate for relational database design?

(1) 4NF

(2) BCNF

(3) 2NF

(4) 3NF

166. The column of a table is referred to as the

(1) tuple

attribute

(3) entity

(4) degree

167. The data flow model of an application mainly shows

(1) communication network structure

(2) the underlying data and the relationship among them

(3) processing requirements and the flow of data

(4) decision and control information

168. Student and courses enrolled, is an example of

(1) many – to – one relationship

(3) one – to – many relationship

(2) one – to – one relationship

(4) many – to – many relationship

169. E – R modeling technique is a

(1) right – left approach

(3) bottom – up approach

(2) left – right approach

(4) top – down approach

170. A trigger is

(1) a statement that enables to start any DBMS

(2) a statement that is executed by the user when debugging an application program

(3) a statement that is executed automatically by the system as a side effect of a modification to the database.

(4) a condition the system tests for the validity of the database user.

171. Reusability is a desirable feature of a language as it

(1) decreases the testing time

(2) increases the testing time

(3) reduces the compilation time

(4) reduces the execution time

172. A constructor is called whenever

(1) an object is used

an object is declared

(3) a class is declared

(4) a class is used

173. Which of the following remarks about the differences between constructors and destructors are correct ?

- (1) constructors can take arguments but destructors cannot.
(2) constructors and destructors can be used to copy the information
(3) destructors can take arguments but constructors cannot
(4) destructors can be overloaded but constructors cannot be overloaded

174. The order in which operands are evaluated in an expression is predictable if the operator is

- (1) * (2) + (3) %

(4) &&

175. Choose the best answer :

A function that does the same operation on different data types is to be implemented by using

- (1) macros (2) overloading
(3) function template (4) default arguments

176. In C++, dynamic memory allocation is accomplished with the operator

- (1) new (2) this (3) malloc() (4) calloc()

177. The break statement causes an exit

- (1) from innermost loop only
(2) only from the innermost switch only
(3) from all loops & switches
(4) from inner most loop or switch

178. The process of building new classes from existing one is called

- (1) polymorphism (2) structure
(3) inheritance (4) cascading

179. In C++ runtime polymorphism is achieved by

- (1) friend function (2) virtual function
(3) inline function (4) function overloading

180. The operator that cannot be overloaded is

- (1) ++ (2) ~ (3) ()

(4) ::

181. Consider the following code :

String state = new String ("Andhra");

System.out.println(state.length());

What is printed ?

- (1) 6 (2) 7 (3) 8 (4) Andhra

182. What is the difference between java applet and java application ?
- An application can in general be trusted whereas an applet can't.
 - An applet must be executed in a browser environment.
 - An applet is not able to access the files of the computer it runs on
 - All the above

183. What is byte code in the context of Java ?
- The type of code generated by a Java compiler
 - The type of code generated by a Java Virtual Machine
 - It is another name for a Java source file
 - It is the code written within the instance methods of a class

184. You read the following statement in a Java program that compiles and executes
`submarine.dive(depth);`
- What can you say for sure ?
- depth must be an int
 - dive must be a method.
 - dive must be the name of an instance field
 - submarine must be the name of a class
- An application can in general be trusted whereas an applet can't*

185. Which of the following may be part of a class definition ?
- instance variables
 - instance methods
 - constructors
 - All the above

186. Which of the following is not a primitive data type ?
- Boolean
 - string
 - byte
 - double

187. The statement `System.out.println ((double) 7/4);` prints
- 1.75
 - 1
 - 1.0
 - 2.0

188. Exceptions that are expected to possibly occur are called :
- checked exceptions
 - unchecked exceptions
 - runtime exceptions
 - errors

189. Garbage collector frees the programmer from worrying about
- memory leaks
 - dangling references
 - creating new objects
 - recursion

190. Elements of the array have the same
- index
 - scope
 - datatype
 - bound

191. HTTP stands for
(1) hyper text transfer procedure
(3) high text type Performa
(4) hyper text transfer protocol
192. Which of the following is platform free language ?
(1) JAVA
(2) COBOL
(3) C
(4) FORTRAN
193. Mechanism to protect private networks from outside attack is
(1) Anti virus
(2) Digital Signature
(3) Firewall
(4) Formatting
194. The internet is
(1) Network of networks
(2) Web site
(3) Host
(4) Server
195. A GUI :
(1) uses buttons, menus and icons
(2) should be easy for a user to manipulate
(3) stands for Graphic Use Interaction
(4) Both (1) and (2)
196. What does IDE stand for
(1) Integrated Design Environment
(2) Integrated Development Environment
(3) Interior Development Environment
(4) Interior Design Environment
197. URL stands for
(1) Uniform Reservation Locator
(2) Uniform Resource Logic
(3) Uniform Resource Locator
(4) both (1) & (2)
198. ASP.NET separates the HTML output from program logic using a feature named as
(1) Exception
(2) Code – behind
(3) Code – front
(4) both (1) & (3)
199. Find the odd one from the following tag of HTML
(1) table
(2) tr
(3) td
(4) form
200. The first page of website is called
(1) Design page
(2) Home page
(3) First page
(4) Main page